

Work Order ID 164078

Thursday, July 13, 2017 11:46:48 AM

164078

Page 2

Item ID: D4202-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Spacer

Start Date: 7/13/2017 Start Qty: 300.00

300

Cust Item ID:

Required Date: 7/28/2017 Req'd Qty: 300.00

300

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

6.00

Quality Control

303

0

DAS

45

9-89

2017-8-10

130

Outsource process - Heat Treat

0.00

130

Outsource1

Memo

54,000.00

Outsource process - Heat Treat

HEAT TREAT AS PER DWG D4202

PO 37428

303

DAS
13
9-89

WOB
2017/08/15

140

Receive & Inspect for Damage & Mat'l Certs

0.00

140

Packaging

Memo

6.00

Packaging

292. SP17-9-12.

Page 3

292 0 2017/09/19 AP

Work Order ID 164078

Thursday, July 13, 2017 11:46:48 AM

164078

Page 4

Item ID: D4202-1 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Spacer
Start Date: 7/13/2017 Start Qty: 300.00 *300* Cust Item ID:
Required Date: 7/28/2017 Req'd Qty: 300.00 *300* Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	QC21- Final Inspection - Work Order Release	0.00							
200									
QC	Memo	30.00							
Quality Control									

17/9/21
SEP 20 2017

Thursday, July 13, 2017 11:46:51 AM

164078

D4202-1

Required Date: 7/28/2017

Required Qty: 300.00

Comments: IPP REV:A NEW ISSUE 10-12-07 JLM VERIFIED:DD IPP
REV:B AS PER REV B 11-04-05 JLM VERIFIED BY:DD IPP Rev:C
11.12.19 PER DWG REV.C DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6T0.500W.058		Purchased	No			100	f	132.0000	0.35	110.5263			
M6061T6T0 500W 058									**				

6061-T6 RD Tube .500 x.058W

Location

Loc Qty

Loc Code

MAT013

132

DAS

23

9-89

~~MA-1013~~-12-12-12-(2)

84

48

10

48 ~~40.214~~ ~~40.214~~

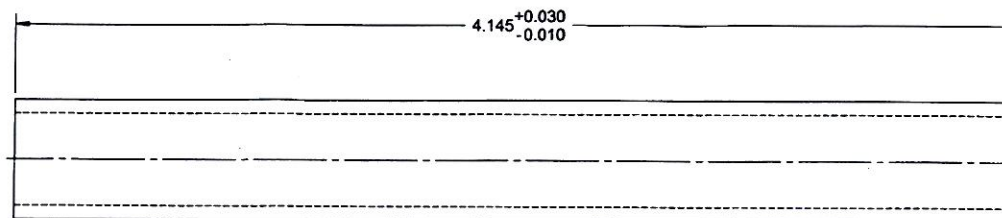
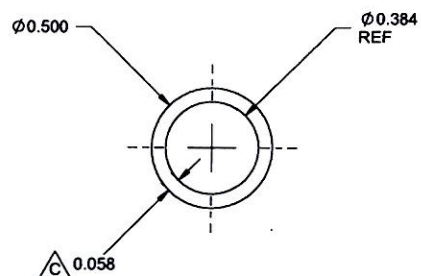
~~11~~-12-12-12-12 138083

48

48

17/8-9

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 164078 MJS
170713



D4202-1 SPACER

RELEASED
2011-12-14

NOTES:

- 1) MATERIAL: 6061-T4/T42 ALUMINUM TUBING PER WW-T-700/6, AMS 4081, OR ASTM B210 / B221 / B241
REF DART SPEC M6061T4T0.500W.058
OR
6061-T6/T62 ALUMINUM TUBING PER WW-T-700/6, QQ-A-200/8, QQ-A-225/8, AMS 4080 / 4082, OR ASTM B210 / B221 / B241
REF DART SPEC M6061T6T0.500W.58
HEAT TREAT TO -T4/-T42 CONDITION. MIN UTS = 30 KSI (60 HREW MIN)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.03 lbs

C	6061-T4 WAS 6061-T6, 0.058 WAS 0.049	CP	11.12.13
B	0.049 WAS 0.058. REASON: FACILITATE MFG	MB	11.03.22
A	NEW ISSUE	CP	10.09.22
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>JP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>JP</i>		
CHECKED	<i>ASS</i>	DRAWING NO. D4202	
MFG. APPR.	<i>EF</i>	REV. C	
APPROVED	<i>JP</i>	TITLE SPACER	
DE APPR.	<i>JP</i>	SCALE NTS	
DATE	11.12.13	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO37428**

Purchase Order Date 8/15/2017

PO Print Date 8/21/2017

Page Number 2 of 3

Order From :

VC-MET004

Ship To : DART AEROSPACE LTD

METCOR INC.
560 BOUL. ARTHUR SAUVE
SAINT-EUSTACHE, QC J7R 5A8
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 450 473 1884

Ship To Contact

Ship To Phone

Ship Via: FedEx PI collect

Ship Acct:

Buyer

Diane Baker

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

3	164521	646.3014 Blade	8/21/2017 Yes 8/21/2017	10.00	\$6.54	\$65.43
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FINISH: HEAT TREAT TO 58-62 RC
ROCKWELL HARDNESS

PART ARE MADE FROM AISI A2 TOOL STEEL

SPN-8-28

Line Total: \$65.43

4	164368	646.3013 Blade	8/21/2017 Yes 8/21/2017	10.00	\$6.54	\$65.43
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FINISH: HEAT TREAT TO 58-62 RC
ROCKWELL HARDNESS

PART ARE MADE FROM AISI A2 TOOL STEEL

SPN-8-28

Line Total: \$65.43

5	164078	D4202-1 Spacer	8/21/2017 Yes 8/21/2017	303.00	\$1.00	\$301.61
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HEAT TREAT TO T4/T42 CONDITION
MIN. UTS=30 KSI (60 HREW MIN)
NOTE: DETAIL C OF C REQUIRED

SPN-9-12

REC 290X

Note:

8/21/2017

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Reçu de livraison

Delivery Receipt

BON DE TRAVAIL Order	EXPÉDITEUR Shipper ID	BON D'EXPÉDITION Shipper
321172	1	121806

EXPÉDITION COMPLÈTE / Shipped Complete

CLIENT /Customer 215

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053



LIVRÉ À /Shipped To

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

COMMANDE DU CLIENT Customer PO	BON DE LIVRAISON DU CLIENT Customer Shipper No.	TYPE DE MATÉRIEL Material Type	DATE DE LA COMMANDE Order Date	TRANSPORTEUR Carrier
37428		AL-6061	2017/8/17	MINIMAX

QUANTITÉ Quantity	No. PIÈCE Part No.	NOM DE LA PIÈCE Part Name	DESCRIPTION DE LA PIÈCE Part Description	POIDS Weight
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303 D4202-1

(303) D4202-1 164078

1 BOITE DE CARTON

11,

SP 179-b.

TYPE DE CONTENEUR Container Type	# DE CONTENEURS # Of Containers	COMMENTAIRES CONTENEUR Container Comments
BOITE DE CARTON	1	

CERTIFICAT

EMPAQUETAGE Packing	
------------------------	--

DAS
9

QUANTITÉ EXPÉDIÉE / Quantity Shipped : 303
POIDS EXPÉDIÉ / Weight Shipped : 11,00
QUANTITÉ RESTANTE / Quantity Remaining : 0
POIDS RESTANT / Weight Remaining : 0,00

CERTIFICAT

QUANTITÉ EXPÉDIÉE / Quantity Shipped:	303
POIDS EXPÉDIÉ / Weight Shipped :	11,00

Signature:

Date:

EXPÉDIÉ LE / Shipped On : 2017/08/31

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
321172	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
37428	N/A	AL-6061		

SPÉCIFICATIONS DU PROCÉDÉ

processing specifications

SOL ANNEAL

SINGLE AGING TO CONDITION T42

EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
CONDUCTIVITY	38 - 44 %IACS	61	38 - 40 %IACS
HARDNESS	60 HREW MIN	61	89,5 - 91,8 HREW
DURETE MESUREE EN HR15TW = 63,0-65,0 HR15TW			

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
303	11	D4202-1 (303) D4202-1 164078 1 BOITE DE CARTON

DAS
9
9-86

COMMENTAIRES / comments

SPR 9-12
11 SEPT

APPROUVÉ par / Approved by:

DATE: 2017-08-30

Pierre Piché
Chief Inspector



METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
321172	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

1

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
37428	N/A	AL-6061		
SPÉCIFICATIONS DU PROCÉDÉ processing specifications SOL ANNEAL SINGLE AGING TO CONDITION T42				
EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results	
CONDUCT	36 - 44 %IACS	61 (60 kHz)	38 - 40 %IACS	
HARDNESS	60 HREW MIN	61	89.5 - 91.8 HREW DURETE MESUREE EN HR15TW = 63,0-65,0 HR15TW	
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
303	11	D4202-1 (303) D4202-1 164078 1 BOITE DE CARTON		

COMMENTAIRES / comments

SOL. ANNEAL 985F, 30 MIN

AGE HARDEN AMBIANT, 96 HRS

Heat treatment (HT) was performed with equipment that meets the requirements of requested specification.

All HT operations were performed in compliance with the required HT specification and all verifications have been performed and documented. No unauthorized changes were performed in regards to the HT. We certify that the material was manufactured, sampled, tested and inspected in accordance with the material specification and the purchase order and was found to meet the requirements.

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Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec la spécification demandée. Toutes les opérations de TT ont été faites en conformité avec les requis de la spécification demandée et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon de commande et le matériel rencontre les exigences spécifiées.

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METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

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Certificat de Conformité Détaillé

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BON DE TRAVAIL order	CHARGEMENT load
321172	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

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APPROUVÉ par / Approved by:

Ischa

Isabel Otero
QA Technician



DATE: 2017-08-31